

**SYSTEM AND METHOD FOR ENHANCING**  
**THE AVAILABILITY OF ROUTING SYSTEMS**  
**THROUGH EQUAL COST MULTIPATH**

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**ABSTRACT OF THE DISCLOSURE**

In a networking environment including one or more network processing (NP) devices and implementing a routing protocol for routing data packets from a source NP devices to destination NP devices via a switch fabric, with each

10 network processing device supporting a number of interface ports, a system and method for enabling a routing system to recover more quickly that the routing protocol so as to significantly reduce the occurrence of lost data packets to a failed target interface/blade. The routing system is enabled to track the operational status of each network processor device and operational status of

15 destination ports supported by each network processor device in the system, and maintains the operational status as a data structure at each network processing device. Prior to routing packets, an expedient logical determination is made as to the operational status of a target network processing device and target interface port of a current packet to be routed as represented in the data structure

20 maintained at the source NP device. If the target blade/interface is not operations, an alternative route may be provided by ECMP. In this manner, correct routing of packets is ensured with reduced occurrence of lost data packets due to failed target NP devices/ports.